



UNITED STATES DEPARTMENT OF COMMERCE United States Patent and Trademark Office Address: COMMISSIONER OF PATENTS AND TRADEMARKS Washington, D.C. 20231

NOTICE OF ALLOWANCE AND FEE(S) DUE

7590 07/24/2002 Eric L Maschoff Workman Nydegger & Seeley					EXAMINI HOBDEN, PA	
1000 Eagle Gate T 60 East South Tem Salt Lake City, UT	ple				ART UNIT	-CLASS-SUBCLASS
Suit Lake City, 0 1	0,111			DA	2882 TE-MAILED: 07/24/2002	378-141000
APPLICATION NO.	FILING DA	ATE I	FIRST NAMED INVENTOR		ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/656,076	09/07/200	00	Gregory C. Andrews		14374.36	9260

TITLE OF INVENTION: LARGE SURFACE AREA X-RAY TUBE SHIELD STRUCTURE

APPLN. TYPE	SMALL ENTITY	ISSUE FEE	PUBLICATION FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	NO	\$1280	\$0	\$1280	10/24/2002

THE APPLICATION IDENTIFIED ABOVE HAS BEEN EXAMINED AND IS ALLOWED FOR ISSUANCE AS A PATENT. <u>PROSECUTION ON THE MERITS IS CLOSED.</u> THIS NOTICE OF ALLOWANCE IS NOT A GRANT OF PATENT RIGHTS. THIS APPLICATION IS SUBJECT TO WITHDRAWAL FROM ISSUE AT THE INITIATIVE OF THE OFFICE OR UPON PETITION BY THE APPLICANT. SEE 37 CFR 1.313 AND MPEP 1308.

THE ISSUE FEE AND PUBLICATION FEE (IF REQUIRED) MUST BE PAID WITHIN THREE MONTHS FROM THE MAILING DATE OF THIS NOTICE OR THIS APPLICATION SHALL BE REGARDED AS ABANDONED. THIS STATUTORY PERIOD CANNOT BE EXTENDED. SEE 35 U.S.C. 151. THE ISSUE FEE DUE INDICATED ABOVE REFLECTS A CREDIT FOR ANY PREVIOUSLY PAID ISSUE FEE APPLIED IN THIS APPLICATION. THE PTOL-85B (OR AN EQUIVALENT) MUST BE RETURNED WITHIN THIS PERIOD EVEN IF NO FEE IS DUE OR THE APPLICATION WILL BE REGARDED AS ABANDONED.

HOW TO REPLY TO THIS NOTICE:

I. Review the SMALL ENTITY status shown above. If the SMALL ENTITY is shown as YES, verify your current SMALL ENTITY status:

A. If the status is changed, pay the PUBLICATION FEE (if required) and twice the amount of the ISSUE FEE shown above and notify the United States Patent and Trademark Office of the change in status, or

B. If the status is the same, pay the TOTAL FEE(S) DUE shown above.

If the SMALL ENTITY is shown as NO:

A. Pay TOTAL FEE(S) DUE shown above, or

B. If applicant claimed SMALL ENTITY status before, or is now claiming SMALL ENTITY status, check the box below and enclose the PUBLICATION FEE and 1/2 the ISSUE FEE shown above.

□ Applicant claims SMALL ENTITY status. See 37 CFR 1.27.

II. PART B - FEE(S) TRANSMITTAL should be completed and returned to the United States Patent and Trademark Office (USPTO) with your ISSUE FEE and PUBLICATION FEE (if required). Even if the fee(s) have already been paid, Part B - Fee(s) Transmittal should be completed and returned. If you are charging the fee(s) to your deposit account, section "4b" of Part B - Fee(s) Transmittal should be completed and an extra copy of the form should be submitted.

III. All communications regarding this application must give the application number. Please direct all communications prior to issuance to Box ISSUE FEE unless advised to the contrary.

IMPORTANT REMINDER: Utility patents issuing on applications filed on or after Dec. 12, 1980 may require payment of maintenance fees. It is patentee's responsibility to ensure timely payment of maintenance fees when due.

Complete and send this form, together with applicable fee(s), to: Mail Box ISSUE FEE

Commissioner for Patents Washington, D.C. 20231

(703)746-4000

INSTRUCTIONS: This form should be used for transmitting the ISSUE FEE and PUBLICATION FEE (if required). Blocks 1 through 4 should be completed where appropriate. All further correspondence including the Patent, advance orders and notification of maintenance fees will be mailed to the current correspondence address as indicated unless corrected below or directed otherwise in Block 1, by (a) specifying a new correspondence address; and/or (b) indicating a separate "FEE ADDRESS" for maintenance fee notifications.

CURRENT CORRESPONDENCE ADDRESS (Note: Legibly mark-up with any corrections or use Block 1)

07/24/2002

Eric L Maschoff Workman Nydegger & Seeley 1000 Eagle Gate Tower 60 East South Temple Salt Lake City, UT 84111

Note: A certificate of mailing can only be used for domestic mailings of the Fee(s) Transmittal. This certificate cannot be used for any other accompanying papers. Each additional paper, such as an assignment or formal drawing, must have its own certificate of mailing or transmission.

Certificate of Mailing or Transmission

I hereby certify that this Fee(s) Transmittal is being deposited with the United States Postal Service with sufficient postage for first class mail in an envelope addressed to the Box Issue Fee address above, or being facsimile transmitted to the USPTO, on the date indicated below.

(Depositor's name (Signature) (Date)

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/656,076	09/07/2000	Gregory C. Andrews	14374.36	9260

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nonprovisional	NO	\$1280	\$0	\$1280	10/24/2002
EXAMI	NER	ART UNIT	CLASS-SUBCLASS		
HOBDEN, PAMELA R		2882	378-141000		
1. Change of correspondence address or indication of "Fee Address" (37 CFR 1.363).			2. For printing on the patent fi	d patent attorneys	
☐ Change of correspondence address (or Change of Correspondence Address form PTO/SB/122) attached.			or agents OR, alternatively, (2) the name of a single firm (having as a member a registered attorney or agent) and the names of up to 2		
☐ "Fee Address" indication (or "Fee Address" Indication form PTO/SB/47; Rev 03-02 or more recent) attached. Use of a Customer Number is required.			egistered patent attorneys or a s listed, no name will be printed	gents. If no name	

3. ASSIGNEE NAME AND RESIDENCE DATA TO BE PRINTED ON THE PATENT (print or type)

PLEASE NOTE: Unless an assignee is identified below, no assignee data will appear on the patent. Inclusion of assignee data is only appropriate when an assignment has been previously submitted to the USPTO or is being submitted under separate cover. Completion of this form is NOT a substitute for filing an assignment. (A) NAME OF ASSIGNEE (B) RESIDENCE: (CITY and STATE OR COUNTRY)

4a. The following fee(s) are enclosed:	4b. Payment of Fee(s):				
☐ Issue Fee	☐ A check in the amount of the fee(s) is enclosed.				
□ Publication Fee	☐ Payment by credit card. Form PTO-2038 is attached.				
☐ Advance Order - # of Copies	☐ The Commissioner is hereby authorized by charge the required fee(s), or credit any overpayment, to Deposit Account Number(enclose an extra copy of this form).				

(Authorized Signature) (Date)

NOTE; The Issue Fee and Publication Fee (if required) will not be accepted from anyone other than the applicant; a registered attorney or agent; or the assignee or other party in interest as shown by the records of the United States Patent and Trademark Office.

This collection of information is required by 37 CFR 1.311. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, Washington, D.C. 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, Washington, DC 20231.

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.



United States Patent and Trademark Office



APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.	
09/656,076 09/07/2000		Gregory C. Andrews	14374.36	9260	
7:	590 07/24/2002		EXAMINI	ER	
Eric L Maschoff			HOBDEN, PAMELA R		
Workman Nydegge 1000 Eagle Gate T			ART UNIT	PAPER NUMBER	
60 East South Temple			2882		
Salt Lake City, UT	84111		DATE MAILED: 07/24/2002		

Determination of Patent Term Adjustment under 35 U.S.C. 154 (b) (application filed on or after May 29, 2000)

The patent term adjustment to date is 4 days. If the issue fee is paid on the date that is three months after the mailing date of this notice and the patent issues on the Tuesday before the date that is 28 weeks (six and a half months) after the mailing date of this notice, the term adjustment will be 4 days.

If a continued prosecution application (CPA) was filed in the above-identified application, the filing date that determines patent term adjustment is the filing date of the most recent CPA.

Applicant will be able to obtain more detailed information by accessing the Patent Application Information Retrieval (PAIR) system. (http://pair.uspto.gov)



United States Patent and Trademark Office

UNITED STATES DEPARTMENT OF COMMERCE United States Patent and Trademark Office Address: COMMISSIONER OF PATENTS AND TRADEMARKS Washington, D.C. 20231

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
ATTECATION NO.	TIEMO BATE	TRIST WINDS INVENTOR	ATTOICKET BOCKET NO.	continuation no.
09/656,076	09/07/2000	Gregory C. Andrews	14374.36	9260
7	590 07/24/2002		EXAMIN	ER
Eric L Maschoff			HOBDEN, PA	MELA R
Workman Nydegg			Laminum I	DARED MILLIONED
1000 Eagle Gate T	ower		ART UNIT	PAPER NUMBER
60 East South Tem	ple		2882	
Salt Lake City, UT	84111			
UNITED STATES			DATE MAILED: 07/24/2002	

Notice of Fee Increase on October 1, 2002

If a reply to a "Notice of Allowance and Fee(s) Due" is filed in the Office on or after October 1, 2002, then the amount due may be higher than that set forth in the "Notice of Allowance and Fee(s) Due" since there will be an increase in fees effective on October 1, 2002. See Revision of Patent and Trademark Fees for Fiscal Year 2003; Notice of Proposed Rulemaking. 67 Fed. Reg. 30634, 30636 (May 7, 2002). Although a change to the amount of the publication fee is not currently proposed for October 2002, if the issue fee or publication fee is to be paid on or after October 1, 2002, applicant should check the USPTO web site for the current fees before submitting the payment. The USPTO Internet address for the fee schedule is: http://www.uspto.gov/main/howtofees.htm.

If the issue fee paid is the amount shown on the "Notice of Allowance and Fee(s) Due," but not the correct amount in view of the fee increase, a "Notice to Pay Balance of Issue Fee" will be mailed to applicant. In order to avoid processing delays associated with mailing of a "Notice to Pay Balance of Issue Fee," if the response to the Notice of Allowance and Fee(s) due form is to be filed on or after October 1, 2002 (or mailed with a certificate of mailing on or after October 1, 2002), the issue fee paid should be the fee that is required at the time the fee is paid. If the issue fee was previously paid, and the response to the "Notice of Allowance and Fee(s) Due" includes a request to apply a previously-paid issue fee to the issue fee now due, then the difference between the issue fee amount at the time the response is filed and the previously paid issue fee should be paid. See Manual of Patent Examining Procedure, Section 1308.01 (Eighth Edition, August 2001).

Effective October 1, 2002, 37 CFR 1.18 is proposed to be revised to change the patent issue fees as set forth below. As stated above, the final fees may be a different amount, and applicant should check the web site given above when paying the fee.

(a) Issue fee for issuing each original or reissue patent, except a design or plant patent:

By a small entity (Sec. 1.27(a))--\$655.00 By other than a small entity--\$1,310.00

(b) Issue fee for issuing a design patent:

By a small entity (Sec. 1.27(a))--\$235.00 By other than a small entity--\$470.00

(c) Issue fee for issuing a plant patent:

By a small entity (Sec. 1.27(a))--\$315.00 By other than a small entity--\$630.00

Questions relating to issue and publication fee payments should be directed to the Customer Service Center of the Office of Patent Publication at (703) 305-8283.

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	Application No.	Applicant(s)	
	09/656,076	ANDREWS, GREGOR	RY C.
Notice of Allowability	Examiner	Art Unit	
	Pamela R. Hobden	2882	
	Famela R. Hobuell	2002	
The MAILING DATE of this communication apper All claims being allowable, PROSECUTION ON THE MERITS IS herewith (or previously mailed), a Notice of Allowance (PTOL-85) NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RI of the Office or upon petition by the applicant. See 37 CFR 1.313	(OR REMAINS) CLOSED in this or other appropriate communical GHTS. This application is subjection	s application. If not included ation will be mailed in due co	ourse. THIS
1. This communication is responsive to 6/26/2002.			
2. The allowed claim(s) is/are <u>1-41</u> .			
3. \boxtimes The drawings filed on <u>07 September 2000</u> are accepted by	the Examiner.		
4. ☐ Acknowledgment is made of a claim for foreign priority und a) ☐ All b) ☐ Some* c) ☐ None of the:	ler 35 U.S.C. § 119(a)-(d) or (f).		
 Certified copies of the priority documents have 	been received.		
Certified copies of the priority documents have	been received in Application N	0	
3. Copies of the certified copies of the priority documents of the priority documents. International Bureau (PCT Rule 17.2(a)).	cuments have been received in	this national stage application	n from the
* Certified copies not received:	- d 05 11 0 0		
5. Acknowledgment is made of a claim for domestic priority up (a) The translation of the foreign language provisional a		ovisional application).	
6. Acknowledgment is made of a claim for domestic priority up		21	
o	1001 00 0.0.0. 33 120 anaror 12	•••	
Applicant has THREE MONTHS FROM THE "MAILING DATE" of below. Failure to timely comply will result in ABANDONMENT of	this communication to file a rep this application. THIS THREE-	ly complying with the require MONTH PERIOD IS NOT E	ements noted XTENDABLE.
7. A SUBSTITUTE OATH OR DECLARATION must be submINFORMAL PATENT APPLICATION (PTO-152) which gives reas			TICE OF
8. CORRECTED DRAWINGS must be submitted.			
(a) ☐ including changes required by the Notice of Draftspers	son's Patent Drawing Review (F	PTO-948) attached	
1) ☐ hereto or 2) ☐ to Paper No			
(b) including changes required by the proposed drawing of	correction filed, which ha	as been approved by the Ex	aminer.
(c) including changes required by the attached Examiner	s Amendment / Comment or in	the Office action of Paper N	O
Identifying indicia such as the application number (see 37 CFR 1. of each sheet. The drawings should be filed as a separate paper			
9. DEPOSIT OF and/or INFORMATION about the deposit attached Examiner's comment regarding REQUIREMENT FOR T			te the
Attachment(s)			
1⊠ Notice of References Cited (PTO-892)		ormal Patent Application (P	
3 Notice of Draftperson's Patent Drawing Review (PTO-948)		mmary (PTO-413), Paper N	o
 5 ☐ Information Disclosure Statements (PTO-1449), Paper No 7 ☐ Examiner's Comment Regarding Requirement for Deposit 		Amendment/Comment Statement of Reasons for Al	lowance
of Biological Material	9∐ Other		.c.yanoo

Application/Control Number: 09/656,076

Art Unit: 2882

REASONS FOR ALLOWANCE

1. The following is an examiner's statement of reasons for allowance: Prior art does not disclose an x-ray tube comprising a shield structure with at least one fluid passageway that is at least partially in contact with coolant, and facilitates nucleate boiling of the coolant in the passageway.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Pamela R. Hobden whose telephone number is (703)-306-5435. The examiner can normally be reached on Monday-Friday 8:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert Kim can be reached on (703)-305-3492. The fax phone numbers for the organization where this application or proceeding is assigned are (703)-308-7382 for regular communications and (703)-308-7722 for After Final communications.

Art Unit: 2882

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703)-308-0956.

prh July 19, 2002

Savid P. Porta